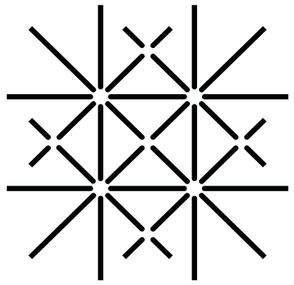

University
of Basel

In association with:

Data handling

In and out

971 051 24708521 66504247 8651 423567 845341 265710 7
1487 1569251 6725062407 8861 5241 4250697 9761 25503
56721 51 4264245 1 261 42351 741 0561 454251 381 304234
4253 6451 3401 32546345324531 4055635364321 495632
21 524524 1 5692245243524 51 445295425342536 79067 9
261 25623456243254903481 2031 2432356245321 1 9054
41 0586 27 65534238393 1 425625364 61 51 243425 51 0596
2532456432534256529545830451 452454356 1 5672537
1 501 460241 423677 521 45241 6255 1 04449 1 048303 1 093
89 2039201 2767 53261 4521 0430933 2830929431 1 52641
1 4059424 7 5049583523335486090 91 21 235634506 1 7 507
89 51 409652 41 231 04321 50941 06542 51 44343265 1 1 4861
31 49852 32893 41 2043 91 7621 547 3531 62431 4530495 1 33

External and endogenous

$$Min\ Costs = \sum_{k,l} c_k^{var} q_{k,l} + \sum_{k,l} t^{em} em_k q_{k,l} \sum_k c_k^{inv} q_k^{max}$$

s.t.

$$q_{k,l} \leq q_k^{max}$$

$$\sum_k q_{k,l} \geq dem_l$$

Data input

'Structural' data

- Production and transport infrastructure
- Costs and lifetime
- Environmental constraints

'Operational' data

- Outputs
- Prices

Where to get?

- Statistical databases (Census Bureau, Federal Statistical Office, Eurostat etc.)
- Global institutions (IEA, OECD etc.)
- Exchanges, commodity and financial markets, company reports and homepages
- Extrapolations and derivations

Data output

Rule 1:

If the results surprise you,
it's likely that there is a model error.

Rule 2:

If the results look reasonable,
it's still likely that there is a model error.